

In the United States Patent and Trademark Office

Serial Number: _____

Appn. Filed: 2004 April 12

Applicant(s): Rajeev Sharma and Kuntal Sengupta

Appn. Title: METHOD AND SYSTEM FOR ENHANCING THREE DIMENSIONAL FACE
MODELING USING DEMOGRAPHIC CLASSIFICATION

Examiner/GAU: _____

Mailed: 2004 April 12, Mon.

At: State College, PA

Information Disclosure Statement

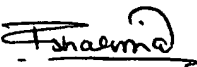
Commissioner for Patents
Washington, District of Columbia 20231

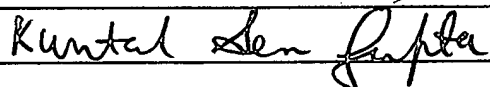
Sir:

Attached is a completed Form PTO/SB/08(A&B) and copies of the pertinent parts of the references cited thereon. Following are comments on any non-English-language references pursuant to Rule 98:

None.

Very respectfully,
Applicant(s):





Enc.: PTO-1449 & References
c/o: Rajeev Sharma, Applicant Pro Se
Advanced Interfaces, Inc.
403 South Allen Street, Suite 104
State College, PA 16801

Telephone:

(814)867-8977

Certificate of Mailing

I certify that this correspondence will be deposited with the United States Postal Service as first class mail with proper postage affixed in an envelope addressed to: "Commissioner for Patents, Washington, DC 20231" on the date below.

Date: April 12, 2004

, Applicant

Substitute for form 1449/PTO

(Use as many sheets as necessary)

Complete if Known

Application Number

Filing Date	Case No.	Case Name	Case Type	Case Status	Case Description	Case Outcome	Case Comments
2018-01-01	18-001	John Doe	Personal Injury	Settled	John Doe vs. ABC Corp. (Personal Injury)	\$10,000	Settled on 2018-03-15
2018-02-01	18-002	Jane Smith	Contract Dispute	Settled	Jane Smith vs. XYZ Inc. (Contract Dispute)	\$5,000	Settled on 2018-04-10
2018-03-01	18-003	ABC Corp.	Product Liability	Settled	ABC Corp. vs. DEF Ltd. (Product Liability)	\$20,000	Settled on 2018-05-20
2018-04-01	18-004	DEF Ltd.	Real Estate Dispute	Settled	DEF Ltd. vs. GHI Corp. (Real Estate Dispute)	\$15,000	Settled on 2018-06-15
2018-05-01	18-005	GHI Corp.	Employment Dispute	Settled	GHI Corp. vs. JKL Inc. (Employment Dispute)	\$8,000	Settled on 2018-07-10
2018-06-01	18-006	JKL Inc.	Intellectual Property	Settled	JKL Inc. vs. MNO Corp. (Intellectual Property)	\$12,000	Settled on 2018-08-20
2018-07-01	18-007	MNO Corp.	Real Estate Dispute	Settled	MNO Corp. vs. PQR Ltd. (Real Estate Dispute)	\$18,000	Settled on 2018-09-15
2018-08-01	18-008	PQR Ltd.	Contract Dispute	Settled	PQR Ltd. vs. RST Inc. (Contract Dispute)	\$7,000	Settled on 2018-10-10
2018-09-01	18-009	RST Inc.	Product Liability	Settled	RST Inc. vs. UVW Corp. (Product Liability)	\$11,000	Settled on 2018-11-20
2018-10-01	18-010	UVW Corp.	Employment Dispute	Settled	UVW Corp. vs. XYZ Inc. (Employment Dispute)	\$9,000	Settled on 2018-12-15
2018-11-01	18-011	XYZ Inc.	Real Estate Dispute	Settled	XYZ Inc. vs. ABC Corp. (Real Estate Dispute)	\$13,000	Settled on 2019-01-10
2018-12-01	18-012	ABC Corp.	Contract Dispute	Settled	ABC Corp. vs. DEF Ltd. (Contract Dispute)	\$6,000	Settled on 2019-02-20
2019-01-01	19-001	DEF Ltd.	Product Liability	Settled	DEF Ltd. vs. GHI Corp. (Product Liability)	\$14,000	Settled on 2019-03-15
2019-02-01	19-002	GHI Corp.	Employment Dispute	Settled	GHI Corp. vs. JKL Inc. (Employment Dispute)	\$10,000	Settled on 2019-04-10
2019-03-01	19-003	JKL Inc.	Real Estate Dispute	Settled	JKL Inc. vs. MNO Corp. (Real Estate Dispute)	\$16,000	Settled on 2019-05-20
2019-04-01	19-004	MNO Corp.	Contract Dispute	Settled	MNO Corp. vs. PQR Ltd. (Contract Dispute)	\$8,000	Settled on 2019-06-15
2019-05-01	19-005	PQR Ltd.	Product Liability	Settled	PQR Ltd. vs. RST Inc. (Product Liability)	\$12,000	Settled on 2019-07-10
2019-06-01	19-006	RST Inc.	Employment Dispute	Settled	RST Inc. vs. UVW Corp. (Employment Dispute)	\$9,000	Settled on 2019-08-20
2019-07-01	19-007	UVW Corp.	Real Estate Dispute	Settled	UVW Corp. vs. XYZ Inc. (Real Estate Dispute)	\$17,000	Settled on 2019-09-15
2019-08-01	19-008	XYZ Inc.	Contract Dispute	Settled	XYZ Inc. vs. ABC Corp. (Contract Dispute)	\$7,000	Settled on 2019-10-10
2019-09-01	19-009	ABC Corp.	Product Liability	Settled	ABC Corp. vs. DEF Ltd. (Product Liability)	\$11,000	Settled on 2019-11-20
2019-10-01	19-010	DEF Ltd.	Employment Dispute	Settled	DEF Ltd. vs. GHI Corp. (Employment Dispute)	\$10,000	Settled on 2019-12-15
2019-11-01	19-011	GHI Corp.	Real Estate Dispute	Settled	GHI Corp. vs. JKL Inc. (Real Estate Dispute)	\$15,000	Settled on 2020-01-10
2019-12-01	19-012	JKL Inc.	Contract Dispute	Settled	JKL Inc. vs. MNO Corp. (Contract Dispute)	\$6,000	Settled on 2020-02-20
2020-01-01	20-001	MNO Corp.	Product Liability	Settled	MNO Corp. vs. PQR Ltd. (Product Liability)	\$13,000	Settled on 2020-03-15
2020-02-01	20-002	PQR Ltd.	Employment Dispute	Settled	PQR Ltd. vs. RST Inc. (Employment Dispute)	\$11,000	Settled on 2020-04-10
2020-03-01	20-003	RST Inc.	Real Estate Dispute	Settled	RST Inc. vs. UVW Corp. (Real Estate Dispute)	\$16,000	Settled on 2020-05-20
2020-04-01	20-004	UVW Corp.	Contract Dispute	Settled	UVW Corp. vs. XYZ Inc. (Contract Dispute)	\$8,000	Settled on 2020-06-15
2020-05-01	20-005	XYZ Inc.	Product Liability	Settled	XYZ Inc. vs. ABC Corp. (Product Liability)	\$12,000	Settled on 2020-07-10
2020-06-01	20-006	ABC Corp.	Employment Dispute	Settled	ABC Corp. vs. DEF Ltd. (Employment Dispute)	\$9,000	Settled on 2020-08-20
2020-07-01	20-007	DEF Ltd.	Real Estate Dispute	Settled	DEF Ltd. vs. GHI Corp. (Real Estate Dispute)	\$17,000	Settled on 2020-09-15
2020-08-01	20-008	GHI Corp.	Contract Dispute	Settled	GHI Corp. vs. JKL Inc. (Contract Dispute)	\$7,000	Settled on 2020-10-10
2020-09-01	20-009	JKL Inc.	Product Liability	Settled	JKL Inc. vs. MNO Corp. (Product Liability)	\$11,000	Settled on 2020-11-20
2020-10-01	20-010	MNO Corp.	Employment Dispute	Settled	MNO Corp. vs. PQR Ltd. (Employment Dispute)	\$10,000	Settled on 2020-12-15
2020-11-01	20-011	PQR Ltd.	Real Estate Dispute	Settled	PQR Ltd. vs. RST Inc. (Real Estate Dispute)	\$15,000	Settled on 2021-01-10
2020-12-01	20-012	RST Inc.	Contract Dispute				

2004 April 12

First Named Inventor

Raieev Sharma

Art Unit

Examiner Name

Attorney Docket Number

AI-0018-DFM

Sheet

1

of

4

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Complete if Known			
		Application Number			
		Filing Date	04-12-2004		
		First Named Inventor	Rajeev Sharma		
		Art Unit			
		Examiner Name			
Sheet	2	of	4	Attorney Docket Number	AI-0018-DFM

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		K. AIZAWA AND T.S. HUANG, Model-Based Image Coding: Advanced Video Coding Techniques for Very Low Bit-Rate Applications, Proceedings IEEE, Aug. 1995, PP. 259-271, Vol. 83.	
		T. JEBARA AND A. PENTLAND, Parameterized Structure from Motion for 3D Adaptive Feedback Tracking of Faces, Proceedings CVPR, June 1997, PP. 144-150.	
		P. FUA AND C. MICCIO, Animated Heads from Ordinary Images: A Least-Squares Approach, Computer Vision and Image Understanding, Sept. 1999, PP. 247-259, Vol. 75, No. 3.	
		K. SENGUPTA AND P. BURNAM, A Curve Fitting Problem and Its Application in Modeling Objects from Images, IEEE Trans. Pattern Analysis and Machine Intelligence, May 2002, PP.674-686, Vol. 24, No. 5.	
		V. BLANZ AND T. VETTER, A Morphable Model for the Synthesis of 3D Faces, Proc. Siggraph, 1999, PP. 187-194.	
		K. SENGUPTA, P. LEE, AND J. OHYA, Face Posture Estimation Using Eigen Analysis on an IBR Database, Pattern Recognition, Jan. 2002, PP. 103-117, Vol. 35.	
		K. SENGUPTA AND CC KO, Scanning Face Models with Desktop Cameras, IEEE Transactions on Industrial Electronics, Oct. 2001, Vol. 48, No. 5.	
		K. SENGUPTA AND JUN OHYA, An Affine Coordinate Based Algorithm for Reprojecting the Human Face for Identification Tasks," Proc. IEEE International Conference on Image Processing, Nov. 1997, PP. 340-343.	
		M. YEASIN AND Y. KUNIYOSHI, Detecting and Tracking Human Face and Eye Using a Space-Variant Vision Sensor and an Active Vision Head, presented at IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2000.	
		V. VAPNIK AND A. CHERVONENKIS, On the Uniform Convergence of Relative Frequencies of Events to Their Probabilities, in Prob. and its Applications, 1971, PP. 264-280, Vol. 17, V. N. V. a A. Y.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Complete if Known	
		Application Number	
		Filing Date	04-12-2004
		First Named Inventor	Rajeev Sharma
		Art Unit	
		Examiner Name	
Sheet 3	of 4	Attorney Docket Number	AI-0018-DFM

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		N. VAPNIK, The Nature of Statistical Learning Theory Heidelberg, 1995, DE Springer Verlag.	
		Y. YANG, An Evaluation of Statistical Approaches to Text Categorization, 1998, Journal on Information Retrieval.	
		E. OSUNA, R. FREUND, and F. GIORSI, Support Vector Machines: Training and Applications, MIT Artificial Intelligence Laboratory and Center for Biological and Computational Learning Department of Brain and Cognitive Sciences, March 1997.	
		C. BURGESS, "A Tutorial on Support Vector Machines for Pattern Recognition", Data Mining and Knowledge Discovery, Vol. 2, PP. 121-167, 1998.	
		J.C. PLATT, Fast Training of SVMs using Sequential Minimal Optimization, in Advances in Kernel Methods - Support Vector Learning, 1998, PP. 185-208, MIT Press, Boston USA.	
		T. JOACHIMS, Making Large-Scale SVM Learning Practical, in Advances in Kernel Methods - Support Vector Learning, 1999, MIT Press, Boston USA.	
		A. MOHAN, C. PAPAGEORGIOU, AND T. POGGIO, Example-Based Object Detection in Images by Components, IEEE Transactions on Pattern Analysis and Machine Intelligence, 2001, Vol. 23(4).	
		D.D LEE AND H.S. SEUNG, Learning the Parts of Objects by Non-Negative Matrix Factorization, Nature, 1999, PP. 788-791, Vol. 401.	
		D. JACOBS, The Space Requirements of Indexing Under Perspective Projection, IEEE Trans. on Pattern Analysis and Machine Intelligence, 1996, PP. 330-333, Vol. 18, No. 3.	
		E. OSUNA, R. FREUND, AND F. GIROSI, Training Support Vector Machines: An Application to Face Detection, Proc. IEEE Conf. Computer Vision and Pattern Recognition, 1997, PP. 130-136.	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Complete if Known	
		Application Number	
		Filing Date	04/12/2004
		First Named Inventor	Rajeev Sharma
		Art Unit	
		Examiner Name	
Sheet 4	of 4	Attorney Docket Number	AI-0018-DFM

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		H. ROWLEY, S. BALUJA, AND T. KANADE, Neural Network-Based Face Detection, IEEE Trans. Pattern Analysis and Machine Intelligence, Jan. 1998, PP. 23-38, Vol. 20, No. 1.	
		M.H. YANG, D.J. KRIEGMAN, AND N. AHUJA, Detecting Faces in Images: A Survey, IEEE Trans. Pattern Analysis and Machine Intelligence, Jan. 2002, Vol. 24, No. 1.	
		C.H. LIN, AND J.L. WU, Automatic Facial Feature Extraction by Genetic Algorithms, IEEE Transactions on Image Processing, Jun. 1999, PP. 834-845, Vol. 8, No. 6.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.